

MISCELLANEOUS.

On the Occurrence of Cucumaria digitata in the Firth of Forth.

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As the gigantic Sea-Cucumber (*Cucumaria digitata*) must be regarded as one of the rarer Echinodermata of the Firth of Forth, I may mention that I obtained a fine specimen of it in the summer of 1863. It measured upwards of a foot long, was of a fine mottled purple colour, and lived for a considerable time in a state of captivity.

On the Milk-dentition of the Walrus. By Professor PETERS.

Malmgren has stated that Wiegmann's formula for the milk-dentition of the Walrus, namely, $\frac{5}{4} \frac{1}{1} \frac{6}{6} \frac{1}{1} \frac{5}{4}$, is incorrect, and that the true formula is $\frac{4}{4} \frac{1}{1} \frac{6}{6} \frac{1}{1} \frac{4}{4}$. He indicates that Wiegmann's notion was founded upon a single case in which the presence of an alveolus already filled up led to the supposition that there was a fifth upper molar; but states that, after an examination of many skulls of the Walrus of various ages, he has never found any trace of this fifth molar. If, therefore, a fifth molar should occur *in the great gap between the third upper molar and the fourth milk-molar*, this must be regarded as an abnormal case.

The Berlin Museum has received the skull of a young Walrus apparently about a year and a half old, which, besides the permanent teeth, $\frac{3}{3} \frac{1}{1} \frac{1-1}{0} \frac{1}{1} \frac{3}{3}$, still exhibits in the lower jaw the two outer milk-incisors, and in the upper jaw, on the right side, the fourth and fifth, and on the left side the fourth and the shallow alveolus of the fifth milk-molars. The position of these teeth is so regular on each side, *not between the fourth milk-molar and the third permanent molar, but further back, and nearly on the same transverse line with the hinder margin of the maxillary zygomatic process*, that they cannot well be regarded as abnormal structures, and therefore furnish new evidence of the correctness of Wiegmann's formula.

The knowledge of the milk-dentition of this animal is of the more consequence, because it is only by it that we can explain the super-numerary teeth in the mouth of the mature animal, which are to be regarded as abnormally late-developed milk-teeth. Amongst these, in the author's opinion, are to be reckoned not only a large fourth molar in the lower jaw, which occurs in two half-grown animals and one mature one, and, singularly enough, only on the left side in all three, but also an anomalous second incisor on the right side of the upper jaw, which has the form of a mushroom, and occurs in a skull having tusks more than half a mètre in length. Wiegmann also cites an observation of Fremery's upon the occurrence of five true upper molars, of which the two hindermost were very small, as a confirmation of his view.

With regard to the systematic position of the Walrus, it cannot be denied that the affinity between the *Lutrina* and *Pinnipedia*, indicated upon osteological grounds by Steenstrup and Sundevall,